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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,689	03/18/2004	Bradley I. Todd	HES 2003-IP-010245U1	6170
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JOHN W. WUSTENBERG			EXAMINER	
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			ART UNIT	PAPER NUMBER
			3672	
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			10/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/803,689

Applicant(s)

TODD ET AL.

Examiner

Nicole Coy

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 38,41-50,52-64,66-69,71,73-80,83-85,103,104,112 and 113 is/are allowed.
- 6) ☒ Claim(s) 1,2,3,4,5,7-11,18-22,32-34,86-94,102,105,107,110 and 111 is/are rejected.
- 7) ☒ Claim(s) 13-17,23-31,101,106,108,109 and 114 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/12/07</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Disposition of Claims: Claims pending in the application are 1,3-5,7-11,13-34,38,41-50,52-64,66-69,71,73-80,83-94 and 101-114.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, ~~2~~³4, 5, 7-11, 18-22, 32-34, 107, 110, and 111 are rejected under 35 U.S.C. 102(e) as being anticipated by Grigsby et al. (US 2005/0056425).

The applied reference has a common assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

With respect to claim 1, Grigsby et al. discloses a disposable downhole tool or component thereof (20) comprising an effective amount of biodegradable material such that the tool or the component desirably decomposes when exposed to a well bore environment (see paragraphs 22 and 26); wherein the biodegradable material comprises a degradable polymer comprising one or more compounds selected from the

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group consisting of polysaccharides, chitin, chitosans, poly(ethylene oxides), poly(phenyllactide), and polyphosphazenes) (see paragraph 27).

With respect to claim 3, Grigsby discloses that the degradable polymer comprises an aliphatic polyester (see paragraph 27).

With respect to claim 4, Grigsby discloses that the aliphatic polyester comprises a polylactide (see paragraph 27).

With respect to claim 5, Grigsby discloses that the polylactide comprises poly(D,L-lactide) (see paragraph 32).

With respect to claim 7, Grigsby discloses that the degradable polymer further comprises polyanhydrides (see paragraphs 27 and 36).

With respect to claim 8, Grigsby discloses that the biodegradable material further comprises one or more compounds selected from the group consisting of poly(adipic anhydride), poly(suberic anhydride), poly(sebacic anhydride), poly(dodecanedioic anhydride), poly(maleic anhydride), and poly(benzoic anhydride) (see paragraph 36).

With respect to claim 9, Grigsby discloses plasticizers (see paragraph 33).

With respect to claim 10, Grigsby discloses the plasticizers are derivatives of oligomeric lactic acid (see paragraph 33).

With respect to claim 11, Grigsby discloses that the biodegradable material further comprises poly(lactic acid) (see paragraph 30).

With respect to claim 18, Grigsby discloses that the biodegradable material is selected to achieve a desired decomposition rate when the tool is exposed to the well bore environment (see paragraph 26).

With respect to claim 19, Grigsby discloses that the well bore environment comprises an aqueous fluid (see paragraph 40).

With respect to claim 20, Grigsby discloses that the tool is self-degradable (see paragraph 40).

With respect to claim 21, Grigsby discloses a well bore temperature of at least about 200 degrees Fahrenheit (see paragraph 38).

With respect to claim 22, Grigsby discloses that the decomposition is due to hydrolysis (see paragraph 26).

With respect to claim 32, Grigsby discloses that the decomposition comprises loss of structural integrity of the tool or component (see paragraph 40).

With respect to claim 33, Grigsby discloses that the decomposition comprises loss of functional integrity of the tool or component (see paragraph 40).

With respect to claim 34, Grigsby discloses that the tool or component decomposes within about a predetermined amount of time (see paragraph 37).

With respect to claim 107, Grigsby discloses that the decomposition of the biodegradable composition is catalyzed by a chemical solution (see paragraph 28).

With respect to claim 110, Grigsby teaches that the chemical solution is applied to the disposable tool by releasing the chemical solution from storage external to the tool (see paragraph 28, wherein the solution inherently was stored at some point before being applied to the downhole tool).

With respect to claim 111, Grigsby discloses that the chemical solution is applied to the disposable downhole tool or component thereof by dispensing the chemical solution into the wellbore (see paragraph 28).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 86-94, 102, and 105 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooke, Jr. in view of Bigg et al. (USP 6,323,307).

With respect to claim 86, Cooke, Jr. teaches a disposable downhole tool or component thereof that desirably degrades when exposed to a well bore environment. Cooke, Jr. does not disclose a catalyst. Bigg et al. discloses catalyzing decomposition of the tool or the component thereof by applying a chemical solution to the tool or the component thereof (see column 11 lines 1-48). Bigg et al. teaches a capsule, so it is an enclosure is separate from the disposable downhole tool or the component thereof, in order to control the rate of decomposition (see column 11 lines 19-37). It would have been obvious to modify Cooke, Jr. by including a catalyst in a capsule as taught by Bigg et al. in order to control the rate of decomposition.

With respect to claim 87, Cooke, Jr. in view of Bigg et al. disclose releasing the chemical solution from storage integral to the tool (wherein Bigg et al. teaches that the chemical solution can be coated on the disposable material; column 11 lines 19-21).

With respect to claim 88, Cooke, Jr. in view of Bigg et al. discloses that the applying step comprises releasing the chemical solution from storage external to the tool (see column 11 lines 21-26).

With respect to claim 89, Cooke, Jr. in view of Bigg et al. disclose that the applying step comprises dispensing the chemical solution into the wellbore.

With respect to claim 90, Cooke, Jr. in view of Bigg et al. disclose that the degradation comprises loss of structural integrity of the tool or the component thereof (see paragraph 33).

With respect to claim 91, Cooke, Jr. in view of Bigg et al. disclose that the degradation comprises loss of functional integrity of the tool or the component thereof (see paragraph 33).

With respect to claim 92, Cooke, Jr. in view of Bigg et al. disclose that the tool or the component thereof degrades within about a predetermined amount of time (see paragraph 33).

With respect to claim 93, Cooke, Jr. in view of Bigg et al. disclose that the applying step comprises a timer-controlled operation, a mechanical operation, a hydraulic operation, an electrical operation, an operation using a communication means, or a combination thereof (see column 11 lines 21-27).

With respect to claim 94, Cooke, Jr. in view of Bigg et al. disclose that the applying step comprises breaking a container that stores the chemical solution (see column 11 lines 21-27).

With respect to claim 102, Cooke, Jr. teaches a frac plug, a bridge plug, or a packer (see paragraph 33).

With respect to claim 105, Cooke, Jr. teaches that the degradable polymer comprises an aliphatic polyester (see paragraph 34).

Allowable Subject Matter

5. Claims 13-17, 23-31, 101, 106, 108, 109, and 114 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 38, 41-50, 52-64, 66-69, 71, 73-80, 83-85, 103, 104, 112, and 113 are allowed.

Response to Arguments

7. Applicant's arguments filed 8/22/07 have been fully considered but they are not persuasive. With respect to claim 1, Applicant has amended the claim by deleting the type of tool (the very amendment the Applicant added to overcome the rejection over

Grigsby). Thus, as noted above, claim 1 is rejected over Grigsby. The amendment did overcome the previous rejection over Cooke, Jr.

As for claims 38 and 71, these claims have been noted as being allowable.

As for claim 86, the Applicant argues that Cooke and Bigg fail to teach or suggest lowering an enclosure comprising the chemical solution into the well bore, wherein the enclosure is separate from the disposable downhole tool and releasing the chemical solution. However, the capsule of Bigg is an enclosure separate from the downhole tool and does release the chemical solution. Thus, the rejection over claim 86 stands.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicole Coy whose telephone number is 571-272-5405. The examiner can normally be reached on M-F 7:30-5pm, first Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

nac



William Neuder
Primary Examiner